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PACIFIC TELESIS
Group-Washington

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

May 5, 1995

DOCKET FILE COPY ORIGINAL

William F. Caton
Acting Secretary
Federal Communications Commission
Mail Stop 1170
1919 M Street, N.W., Room 222
Washington, D.C. 20554

Dear Mr. Caton:

Re: *Petition For Rulemaking of Pacific Bell Mobile Services Regarding a Plan For Sharing The Costs of Microwave Relocation*

On behalf of Pacific Bell Mobile Services, please find enclosed an original and six copies of its *"Petition For Rulemaking"* in the above proceeding.

Please stamp and return the provided copy to confirm your receipt. Please contact me should you have any questions or require additional information concerning this matter.

Sincerely,

Enclosures

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MAY - 5 1995

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

Petition for Rulemaking	)
of Pacific Bell Mobile Services	)
Regarding a Plan for Sharing	)
the Costs of Microwave Relocation	)
	)

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PETITION FOR RULEMAKING OF PACIFIC BELL MOBILE SERVICES

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May 5, 1995

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SUMMARY

Although several PCS licensees may benefit from the relocation of a microwave link, currently there is no mechanism in place to share the cost among those who benefit. This creates two problems. One, some PCS providers may take a wait and see attitude, hoping someone else will absorb the cost to clear the link. If too many providers take this posture, deployment of PCS could be delayed. Two, PCS providers that take a proactive stance and quickly initiate relocation will be at a competitive disadvantage because their cost of service will be higher. This Petition for Rulemaking proposes an equitable cost sharing plan to eliminate these problems.

Our goal in developing the submitted plan was to create an equitable cost sharing plan that avoided controversial determinations such as direct cost vs. premium cost, degree of interference, and "benefit" of relocation. Instead of separating direct and premium costs, we propose to depreciate relocation costs so that later entrants bear a smaller cost. To avoid the degree of interference and degree of benefit determinations, our plan shares costs equally among those who interfere reduced only by depreciation to account for later entry.

The centerpiece of the plan is the creation of interference rights that are separate from microwave transmission rights. Our plan transfers the microwave licensee's right not to be interfered with to the PCS licensee that relocates the link. This would be reflected in the FCC database.

When PCS licensees discover as part of their required interference analysis that they would have interfered with the link , if the link were still in operation, they must reimburse the PCS provider that relocated the link according to the proposed formula described in detail in the Petition orpursuant to a mutually agreed amount.

Designated entities would be permitted to pay their share of relocation costs in installment payments along the lines of the auction rules.

This plan offers a straightforward mechanism to eliminate the free rider problem and to encourage the relocation of links, since the potential for reimbursement exists. We urge the Commission to initiate a rulemaking on our plan as soon as possible.

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PETITION FOR RULEMAKING OF PACIFIC BELL MOBILE SERVICES

I. INTRODUCTION

Pursuant to Section 1.401 of the Commission's Rules, Pacific Bell Mobile Services ("PBMS") petitions for a rulemaking regarding the sharing of microwave relocation costs. The Commission has spent a great deal of time in defining its rules and policies for making spectrum available for emerging telecommunications technologies. The rules provide for the relocation of incumbent microwave users if licensees in emerging technologies such as broadband PCS are unable to share the spectrum without causing harmful interference to the incumbents.[1]

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[1] In the Matter of Redevelopment of Spectrum to Encourage Innovation in the Use of New Technologies, ET Docket No. 92-9, First Report and Order and Third Notice of Proposed Rulemaking, 7 FCC Rcd 6886 (1992); Second Report and Order, 8 FCC Rcd 6495; Third Report and Order and Memorandum Opinion and Order, 8 FCC Rcd 6589 (1993).

The Commission has downplayed the cost of microwave relocation. "It bears emphasis that relocation costs are expected to be a relatively small portion of PCS licensees total costs."[2] However, the Personal Communication Industry Association ("PCIA") estimates that the costs of microwave relocation to PCS licensees could exceed $1 billion.[3]

We share PCIA's view that the costs of microwave relocation will be substantial. In California, there are approximately 260 microwave links that we estimate we will interfere with as the service provider for the B block Major Trading Areas. See Appendix A. Currently, there is no mechanism in place to share the costs of microwave relocation among all those PCS licensees that benefit whenever a PCS licensee pays for the relocation of a microwave link. This creates a serious inequity, and we ask the Commission to address this inequity in a rulemaking.

II. BACKGROUND

In its Third Memorandum Opinion and Order in GEN Docket No. 90-314, the Commission addressed a microwave cost sharing plan presented by PCIA. The Commission recognized that eliminating any "free rider" aspect of microwave relocation was an attractive idea in theory but concluded that PCIA's proposal was not sufficiently developed.[4] Moreover, the Commission was concerned that ambiguity in the PCIA proposal would "increase the

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[2] In the Matter of Amendment of the Commission' Rules to Establish New Personal Communications Services, 9 FCC Rcd 6908, para. 4 (1994) ("Third Memorandum Opinion and Order").

[3] Petition for Partial Reconsideration of Memorandum Opinion and Order, GEN Docket No. 90-314, 9 FCC Rcd 4957 (1994), Personal Communications Industry Association, July 25, 1994, p. 2.

[4] Third Memorandum Opinion and Order, para. 40.

likelihood that this Commission will be called upon to adjudicate complex disputes that are almost wholly of a commercial nature (e.g. whether a particular PCS licensee actually 'benefited' from a relocation, and to what extent; the amount of the 'direct' costs of that relocation, as opposed to 'premium' costs; and the appropriate basis for measuring each PCS licensee's 'pro-rata' share of such costs.)"[5] We have attempted to eliminate such ambiguities in the plan described in Section III.

The "free rider" problem arises because several PCS providers may cause harmful interference with the same microwave link. Several PCS providers may interfere with the same link, partly because of the difference in how microwave and PCS spectrum is allocated and licensed. For example, microwave links may cross Major Trading Areas ("MTA") and Basic Trading Area ("BTA") boundaries. In addition, the channelization is different so that a single microwave link may also cut across several PCS frequency blocks affecting all of the blocks it passes through.

Technical characteristics of the microwave links are also important. A microwave link located entirely in Block B may suffer interference from Block A, in which case the A, D and B Block licensees have an interest in relocating that link. Thus, several PCS providers may interfere with the same microwave link, and they may all benefit from relocating the link.

Without a cost-sharing plan the PCS provider that relocates the link pays the full cost while all other PCS providers that would also interfere with the link receive a free benefit. Consequently, some PCS providers may take a "wait and see" attitude, hoping someone else will

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[5] Id.

clear the link for them. If too many providers take this posture, deployment of PCS could be delayed.

PBMS considered a variety of different microwave relocation cost allocation plans before submitting the current version. These included plans based on the amount of interference contributed by each PCS licensee ($ per dB), plans that analyzed the population benefited by a particular relocation ($ per pop), plans based on channel mapping (cochannel cost sharing), and plans that required a central organization, such as a Licensed Transition and Management ("LTAM") to assume the responsibility of relocating all the existing microwave links in the US and assigning relocation cost to all PCS licensees. All the plans considered were possible but either lacked the simplicity and ease of administration of the current plan or else created too much potential for abuse and dispute.

The $ per dB plan would calculate the total interference received at a particular microwave receiver and distribute the cost by percentage of interference contributed. This approach has the feature that all beneficiaries contribute in proportion to the interference they cause. However, because total relocation costs do not depend on the total amount of interference, this is a dubious basis for cost allocation. Also, the administration of such a plan would be open to extensive dispute concerning the choice of simulation model and parameters.

The $ per pop plan also shared the appeal of the costs being distributed in proportion to the number of potential subscribers in a licensee's market which benefited from a particular microwave relocation. This related the costs more strongly to the benefits received from a microwave relocation, but would also be subject to simulation model and parameter disputes.

The channel mapping idea was based on how the existing operational fixed service microwave channel plan would be mapped into the PCS channel plan. For example, a microwave receiver operating at 1855 MHz would be mapped into the PCS A block and an 1870 MHz receiver would be mapped into both the D and B PCS blocks. Microwave links located completely within a particular PCS block would be the responsibility of the PCS licensee to relocate. If a PCS licensee relocated a link outside of his frequency block due to adjacent channel interference concerns, the entire cost of the relocation would be recovered from the PCS licensee operating within that particular block. This type of plan had the advantage of reducing the number of cost sharing participants involved in any particular microwave relocation, because the costs would only be shared among the cochannel PCS licensees. By artificially reducing the number of cost sharing participants to cochannel cases, the cost per any individual cochannel PCS licensee will rise, while allowing full cost recovery for adjacent channel relocations. This approach did not recognize that the benefits of a particular relocation can extend well beyond the channel plans.

This approach has additional problems as well. The first is that it encourages providers to undertake the relocation of links for which they will pass off 100% of the costs. Such an arrangement would provide inadequate incentives for cost control and would increase the likelihood of disputes about the equivalence of the services provided to the relocated link. Second, this scheme does not allocate costs between A and B block licensees when the link lies in a block, say block D, that never establishes service. Moreover, under the same circumstances, it might discourage the D block licensee from establishing service in order to avoid incurring the

link relocation cost. This could happen even though the link could be economically relocated or, indeed, has already been relocated.

The LTAM was based on the approach taken by the potential unlicensed PCS equipment providers in clearing the 1910-1930 MHz band for unlicensed PCS. A single non-profit organization would be chartered to assume the responsibility of relocating all the existing 1850-1990 MHz microwave links to make PCS possible without interference. The costs of moving the microwave links would be recovered by assessments on licensed transmitting devices. This approach would be difficult to start at this point in time because it is time-consuming to set up. It was 2 years from the time UTAM was proposed until a formal proposal for funding and clearance of the bands was submitted in August 1994.[6] The plan has not yet received formal approval by the Commission. The A and B block licenses will soon be authorized and microwave relocation is beginning. There is not sufficient time to use an LTAM approach.

Our goal in developing the submitted plan was to create an equitable cost sharing plan that avoided the controversial determinations required by the plans discussed above such as direct cost vs. premium costs, degree of interference, and 'benefit' of relocation that would force the Commission to be the arbiter of endless disputes. Professor Paul Milgrom assisted us in developing the plan.

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[6] Public Notice, Further Comments Sought on Plan for UTAM, Inc. Regarding Financing and Managing 2 GHz Microwave Relocation, DA 94-873, August 11, 1994.

Instead of separating direct and premium costs, we propose to depreciate the relocation costs so that later entrants bear a smaller cost. To avoid the "degree of interference" and "degree of benefit" determinations, our plan shares the costs equally among those who interfere reduced only by the depreciation to account for later entry. Attempts to calculate the degree of benefit or degree of interference are not only difficult, but also largely irrelevant. A licensee either interferes or he does not. If he interferes, he benefits from a previous relocation and should pay a share of the cost. This is equitable because if no other licensee had initiated relocation, the full cost would have fallen on the interfering licensee regardless of the degree of harmful interference.

III. THE PBMS RELOCATION COST SHARING PLAN

The centerpiece of the plan is the creation of interference rights that are separate from the microwave transmission rights. Section 94.63 of the Commission's Rules states the interference criteria for private fixed microwave licensees and establishes an obligation not to interfere and a right not to be interfered with. Our plan transfers this right not to be interfered with to the PCS licensee that relocates the link and he would be listed in the FCC database as the owner of the interference rights to that link. In other words, although there is no longer any transmission over the link, the FCC database would indicate that a particular PCS provider who migrated the link has interference rights to that link on a primary basis, as if the link were still operational.

Pursuant to Section 24.237 of the Commission's Rules whenever another PCS provider begins the required prior coordination notice ("PCN") process, links that have

interference rights would require compensation if a subsequent PCS provider's system would have caused harmful interference if the link were still in operation. Interference would be determined by the criteria set forth in the TIA Telecommunications Systems, Bulletin 10-F, "Interference Criteria for Microwave Systems," May, 1994. This sets out a clear standard to determine if another PCS licensee benefits from a relocation paid for by another PCS licensee. If, as part of the PCN process, a PCS provider determines that he would have interfered with the link had it not already been relocated, he must reimburse the PCS licensees that paid for the relocation pursuant to the following formula.

$$R_N = \frac{C}{N} \times \frac{120 - (T_N - T_1)}{120}$$

C equals the amount paid to relocate the link.

N equals the number of the interfering PCS provider. After the link is relocated, the next PCS provider who would interfere would be 2, the next one 3 and so on.

T_N equals the number of the month in which PCS provider N would have caused interference with the link, i.e., when his system is placed in operation.

T_1 equals the month that the first PCS provider obtained the interference rights as evidenced by the interference rights being recorded in the FCC database.

We propose that a clearinghouse maintain records on the amount paid to relocate a link. Appendix B lists what those records should include.

The following is an example of how the formula works. The PCS provider who relocates the link pays $60, so C = $60. His interference rights are registered in the FCC database in January, 1996 so $T_1 = 1$. The next PCS provider puts a link in service that would

have interfered with the relocated link in January, 1997, so $T_N = 13$. $N = 2$, since this is the second PCS provider.

$$R_2 = \frac{60}{2} \times \frac{120 - (13-1)}{120} = \$27$$

The second PCS provider pays $27 to the first. Notice that, after deducting its compensation, the first PCS provider finds that it has paid $33, or $6 more than the second provider. This $6 is the cost of the first year depreciation - a cost that is borne only by the first provider.

The next PCS provider puts in service a system that would have interfered with the relocated link beginning in January, 1998. That provider pays

$$R_2 = \frac{60}{3} \times \frac{120 - (25-1)}{120} = \$16$$

and divides the payment equally between the first two providers. After adjusting for $8 in new receipts, the net payment by the first provider is now $25; the net payment by the second provider is $19; and the net payment by the third provider is $16. The $6 difference between the first and second provider continues to reflect the first year depreciation charge. The $3 difference between the second and third providers reflects the fact that the second provider has borne half of the second year depreciation charge. If a fourth provider later begins service that would have interfered with the link, it would similarly pay less than the third provider by an amount equal to one-third of the depreciation charge for the period between the times that their services were established. Appendix C contains further examples.

Some microwave licensees have regional systems. Those licensees may arrange with a PCS provider to relocate their entire microwave system, even when the provider is not

licensed to provide service throughout the corresponding area. For example, a PCS licensee may relocate a system that affects two MTAs, but he only has the PCS license for one of the MTAs. The PCS provider who relocates the link will not be the first to provide service in the MTA in which he has no license. In that case, the PCS provider who is the first to provide service which will interfere with the links should be required to acquire the interference rights by reimbursing the relocater for 100% of the amount paid by the relocater of the link. Depreciation begins only when the service is actually initiated. At that point, the PCS provider offering service will become the full owner of the interference rights and will be entitled to future reimbursement from subsequent PCS provider(s) that benefit from the relocation of the microwave links.

When a PCS provider recognizes that he will be required to provide reimbursement as a result of the PCN process, he would contact a clearinghouse which would maintain the records of the cost paid for microwave relocation. This cost information would be broken down by link. He could then make the appropriate payment to the appropriate licensee(s) according to the formula or could negotiate a lower price, as described below.

Designated entities should be permitted to pay their share of the relocation costs in installment payments along the lines of the auction rules.

Finally, the formula in the plan sets a cap on compensation. It does not require that the amount calculated by the formula must be paid. Parties have the ability to negotiate lesser amounts. While we have addressed the issue of premium vs. direct costs through the use of a 10 year straight line depreciation, we also realize that parties may still be concerned that some links are associated with excessive premium costs. For this reason, we propose that the a cap of $600,000 be placed on the amount paid to relocate any link. C would be either the

amount paid to relocate the link or $600,000, whichever is less. This means the greatest amount that any PCS provider would have to pay as reimbursement would be $300,000 unless the PCS provider that relocated the link will not be providing service in the area of the link. In that case, the first PCS provider offering service would acquire the interference rights at 100% of the cost or $600,000, whichever is less.

This plan offers a simple mechanism to eliminate the free-rider problem and to encourage relocation of a link since the potential for reimbursement exists. However, reimbursement is only required if interference would have occurred had the microwave link continued to operate. PCS providers who engineer their systems in a way to avoid interference will not be required to pay anything. Consequently, the PCS provider relocating the link has every incentive to bargain aggressively in compensating the microwave incumbent, since he will surely have to bear part of the cost and may even bear the full cost if no other PCS provider benefits from the relocation.

The plan offers an easy method of compliance since interference rights are maintained in the FCC database and all PCS providers must perform an interference analysis to demonstrate non-interference pursuant to Section 24.237 of the Commission's Rules. A clearinghouse will administer the reimbursement process by maintaining all the cost and payment records related to each microwave link. There should be little reason for the Commission to be involved in disputes since the plan and formula that is its foundation are straightforward and clear-cut. To the extent that disputes arise, use of the Administrative Dispute Resolution pursuant to Section 1.18 of the Commission's Rules should be encouraged. (The proposed rule is set forth in Appendix D.)

IV. CONCLUSION

Our plan demonstrates that the free rider problem can be resolved in a manner that will not place the Commission in the center of endless commercial disputes. We respectfully request that the Commission initiate a rulemaking proceeding on our plan as soon as possible. Time is truly of the essence in this case. Winners of the A and B block licenses are anxious to bring PCS to market as quickly as possible. Initiation of relocation of microwave links has already begun. If a cost sharing proposal is not adopted quickly, some links will not be relocated because the costs are too high for one licensee to absorb and other links will be relocated with

one licensee paying the full cost while other licensees derive a free benefit. Neither situation is in the public interest.

Respectfully submitted,

PACIFIC BELL MOBILE SERVICES

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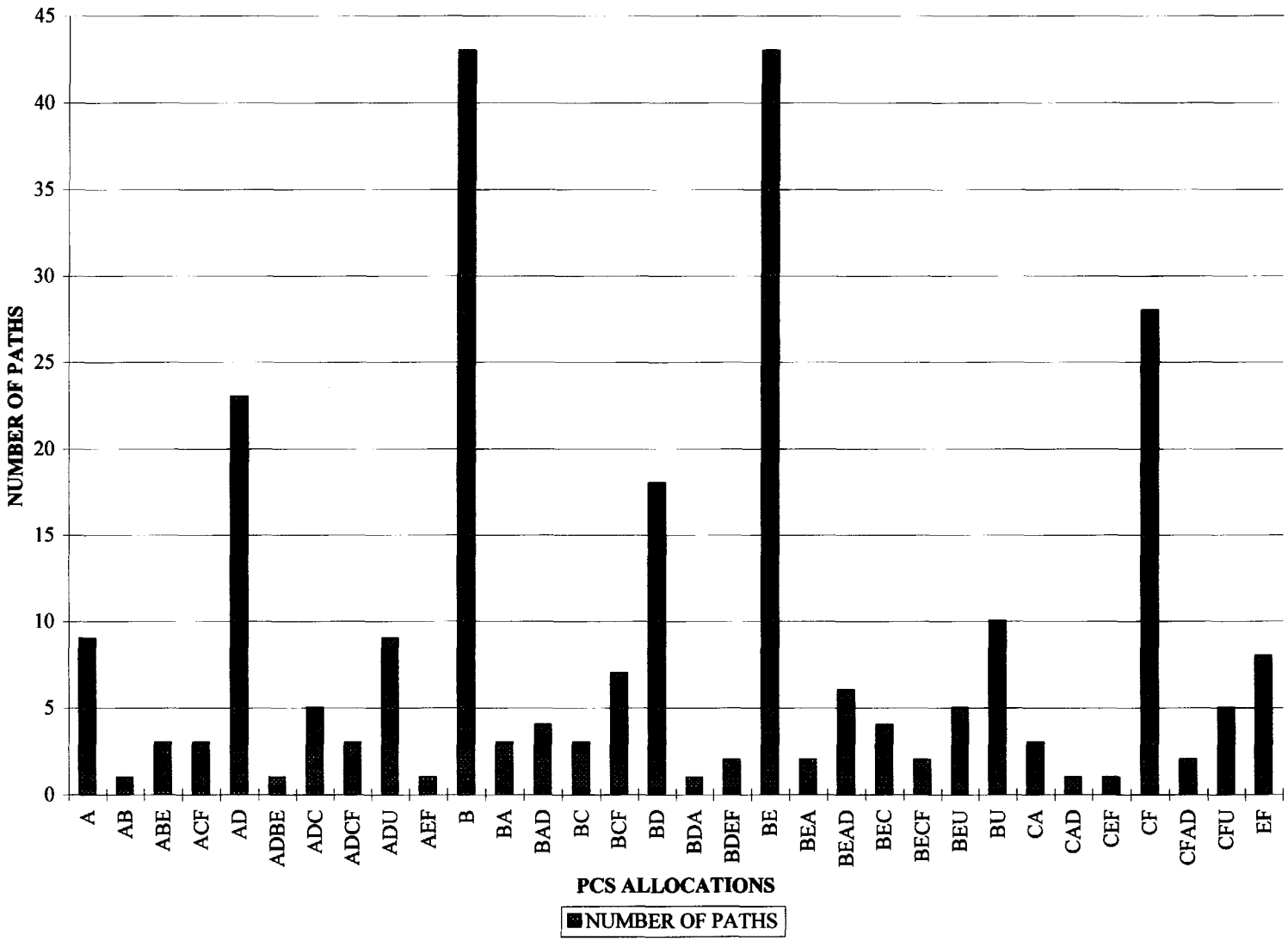
Its Attorneys

Date: May 5, 1995

PCS BLOCK DISTRIBUTION OF 260 MICROWAVE PATHS BEING RELOCATED IN THE SAN FRANCISCO AND LOS ANGELES MTAs FOR THE B BLOCK LICENSE



Appendix A

Appendix B

Categories of Costs for Microwave Relocation Records

New equipment (radio)

Frequency coordination

Engineering

Preparation of application and filing fees

Permit process

Antenna Subsystems

Training, Test, Equipment, and Spares

Tower Upgrade

DC Power and HVAC

Equipment Disposal

Network Equipment

Cost Sharing Calculation Examples

Initial amount to move MW link:	$300,000.00								
		Month	Total Payment	PCS OP1	PCS OP2	PCS OP3	PCS OP4	PCS OP5	PCS OP6
Date of interference rights:	1/1/96	1	**$300,000.00**	**$300,000.00**					
Date that 2nd operator activated:	7/4/96	7	**$142,500.00**	**($142,500.00)**	**$142,500.00**				
Date that 3rd operator activated:	11/15/97	23	**$81,666.67**	**($40,833.33)**	**($40,833.33)**	**$81,666.67**			
Date that 4th operator activated:			**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**		
Date that 5th operator activated:			**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	
Date that 6th operator activated:			**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**
			NET COST:	$116,666.67	$101,666.67	$81,666.67	$0.00	$0.00	$0.00
			% of Total Cost:	39%	34%	27%	0%	0%	0%

Initial amount to move MW link:	$300,000.00								
		Month	Total Payment	PCS OP1	PCS OP2	PCS OP3	PCS OP4	PCS OP5	PCS OP6
Date interference rights obtained:	1/1/96	1	**$300,000.00**	**$300,000.00**					
Date that 2nd operator activated:	2/1/96	2	**$148,750.00**	**($148,750.00)**	**$148,750.00**				
Date that 3rd operator activated:	11/1/96	11	**$91,666.67**	**($45,833.33)**	**($45,833.33)**	**$91,666.67**			
Date that 4th operator activated:			**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**		
Date that 5th operator activated:			**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	
Date that 6th operator activated:			**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**
			NET COST:	$105,416.67	$102,916.67	$91,666.67	$0.00	$0.00	$0.00
			% of Total Cost:	35%	34%	31%	0%	0%	0%

Initial amount to move MW link:	$300,000.00								
		Month	Total Payment	PCS OP1	PCS OP2	PCS OP3	PCS OP4	PCS OP5	PCS OP6
Date interference rights obtained:	1/1/98	25	**$300,000.00**	**$300,000.00**					
Date that 2nd operator activated:	1/1/98	25	**$150,000.00**	**($150,000.00)**	**$150,000.00**				
Date that 3rd operator activated:	1/1/02	73	**$60,000.00**	**($30,000.00)**	**($30,000.00)**	**$60,000.00**			
Date that 4th operator activated:	1/1/04	97	**$30,000.00**	**($10,000.00)**	**($10,000.00)**	**($10,000.00)**	**$30,000.00**		
Date that 5th operator activated:	1/1/04	97	**$24,000.00**	**($6,000.00)**	**($6,000.00)**	**($6,000.00)**	**($6,000.00)**	**$24,000.00**	
Date that 6th operator activated:	1/1/04	97	**$20,000.00**	**($4,000.00)**	**($4,000.00)**	**($4,000.00)**	**($4,000.00)**	**($4,000.00)**	**$20,000.00**
			NET COST:	$100,000.00	$100,000.00	$40,000.00	$20,000.00	$20,000.00	$20,000.00
			% of Total Cost:	33%	33%	13%	7%	7%	7%

Cost Sharing Calculation Examples - $600,000 Cost Cap

Initial amount to move MW link:	$1,000,000									
Cap on Cost	$600,000		Month	Total Payment	PCS OP1	PCS OP2	PCS OP3	PCS OP4	PCS OP5	PCS OP6
				$1,000,000	$1,000,000					
Date of interference rights:	1/1/96		1	$600,000						
Date that 2nd operator activated:	7/4/96		7	$285,000	($285,000)	$285,000				
Date that 3rd operator activated:	11/15/97		23	$163,333	($81,667)	($81,667)	$163,333			
Date that 4th operator activated:				$0	$0	$0	$0	$0		
Date that 5th operator activated:				$0	$0	$0	$0	$0	$0	
Date that 6th operator activated:				$0	$0	$0	$0	$0	$0	$0.00
				NET COST:	$633,333	$203,333	$163,333	$0	$0	$0
				% of Total Cost:	63%	20%	16%	0%	0%	0%

Initial amount to move MW link:	$900,000									
Cap on Cost	$600,000		Month	Total Payment	PCS OP1	PCS OP2	PCS OP3	PCS OP4	PCS OP5	PCS OP6
				$900,000	$900,000					
Date interference rights obtained:	1/1/96		1	$600,000						
Date that 2nd operator activated:	2/1/96		2	$297,500	($297,500)	$297,500				
Date that 3rd operator activated:	11/1/96		11	$183,333	($91,667)	($91,667)	$183,333			
Date that 4th operator activated:				$0	$0	$0	$0	$0		
Date that 5th operator activated:				$0	$0	$0	$0	$0	$0	
Date that 6th operator activated:				$0	$0	$0	$0	$0	$0	$0.00
				NET COST:	$510,833	$205,833	$183,333	$0	$0	$0
				% of Total Cost:	57%	23%	20%	0%	0%	0%

Initial amount to move MW link:	$800,000									
Cap on Cost	$600,000		Month	Total Payment	PCS OP1	PCS OP2	PCS OP3	PCS OP4	PCS OP5	PCS OP6
				$800,000	$800,000					
Date interference rights obtained:	1/1/98		25	$600,000						
Date that 2nd operator activated:	1/1/98		25	$300,000	($300,000)	$300,000				
Date that 3rd operator activated:	1/1/02		73	$120,000	($60,000)	($60,000)	$120,000			
Date that 4th operator activated:	1/1/04		97	$60,000	($20,000)	($20,000)	($20,000)	$60,000		
Date that 5th operator activated:	1/1/04		97	$48,000	($12,000)	($12,000)	($12,000)	($12,000)	$48,000	
Date that 6th operator activated:	1/1/04		97	$40,000	($8,000)	($8,000)	($8,000)	($8,000)	($8,000)	$40,000
				NET COST:	$400,000	$200,000	$80,000	$40,000	$40,000	$40,000
				% of Total Cost:	50%	25%	10%	5%	5%	5%

Appendix D

AMENDMENT TO PART 24

Microwave Relocation Cost Sharing Plan. A broadband licensee that relocates a microwave link is entitled to reimbursement from any other broadband PCS licensee(s) that benefits from the relocation of the link. Entitlement for reimbursement is determined in the following manner:

(a) Section 94.63 states the interference criteria for private fixed microwave licensees and establishes an obligation not to interfere and a right not to be interfered with. The broadband PCS licensee relocating the microwave link acquires the interference right for that link and is registered as such in the FCC database.

(b) Whenever another broadband PCS licensee determines as part of the prior coordination process required by Section 24.237 that he would have interfered with the link had it not been relocated, he must reimburse the holder of the interference rights and any other licensees that have provided reimbursement to the holder of the interference rights in equal shares. The amount can be mutually agreed upon by the parties or determined by the following formula.

$$R_N = \frac{C}{N} \times \frac{120 - (T_N - T_1)}{120}$$

C equals the actual amount paid to relocate the link or $600,000 whichever is less.

N equals the number of the interfering PCS provider. After the link is relocated, the next PCS provider who would interfere would be 2, the next one 3, and so on.

T_N equals the number of the month in which PCS provider N would have caused interference with the link i.e., when his system is placed in operation.

T_1 equals the month that the first PCS provider obtained the interference rights as evidenced by the interference rights being recorded in the FCC database.

(c) If the holder of the interference rights to a link will never initiate service that would have interfered with link, (e.g., an entire microwave system has been relocated but the holder of the interference rights does not have a license for the entire territory corresponding with

the microwave system), the PCS provider who first provides service that will interfere with the link must reimburse the provider that relocated the system for 100% of cost paid to relocate the link or $600,000 whichever is less. He then acquires the interference rights to that link and is entitled to all subsequent reimbursement as described in (b).

(d) Designated entities, as defined in Section 24.709 of the Rules, are entitled to make their reimbursement payments in installments. Interest is based on the rate for 10-year U.S. Treasury obligations applicable on the date on which interference would have occurred had the link not been relocated, plus 2.5 percent. Principal and interest payments are amortized over the time period of the license.

(e) A designated clearinghouse will maintain the microwave relocation cost records. Access to those records is limited to PCS licensees that determine as part of the prior coordination process that they would have interfered with a microwave link but for its relocation.

(f) Licensees are encouraged to use Administrative Dispute Resolution pursuant to Section 1.18 of the Commission's Rules to settle disputes.